REMARKS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants:

1. Amend claims 1 - 13.

2. Add new claims 14 - 36 (see section C infra).

3. Call the attention of the Examiner to information perhaps pertinent to the present application (see section E infra).

4. Respectfully traverse all prior art rejections (see section D infra).

B. SELECTED COMMENTS REGARDING THE DISCLOSURE

The above-referenced application present discloses establishing a call between "narrowband equipments", i.e. terminals and/or networks using STM, over an ATM network using the ATM switching mechanism, without affecting the STM domain. unlike the applied prior art, the application teaches the use of STM switch emulators (e.g., 251 and 271 in Fig. 2) which provide STM resources for a virtual STM connection to a narrowband switch. The virtual connection is set up, with the switch emulators thus providing emulation of STM resources required by the narrowband call procedures, towards the narrowband switch logic (see, e.g., page 7 of the present application). Thereby, any narrowband based telephony services and associated "value added services" can be provided transparently using ATM switching, and no STM switching is required. Moreover, ATM network resources can be utilized efficiently.

C. THE NEW CLAIMS

New independent claim 14 is directed to a telecommunications network comprising a call services network and a bearer services network, comprising a

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narrowband switch and plural switch emulators. The switch emulators seize plural virtual trunks for establishing an emulated connection between a bearer services network entry port and the bearer services network exit port, with the emulated connection being used for sending information to the bearer services network entry port so that a physical connection can be established through the bearer services network. Support for new independent claim 14 resides throughout the original disclosure, such as at page 10, for example.

New independent claim 36 is directed to a switch emulator, and is understood with reference to the foregoing comments directed to new independent claim 14. Please note that claims 7 - 13 have been amended to depend (at least ultimately) from new independent claim 36.

New independent claim 24 requires plural narrowband switches, as well as a logical unit connected between the plural narrowband switches and the bearer services network. According to claim 24, the logical unit emulates a virtual connection provided to the narrowband switches, and also returns, to a bearer services network entry port, information so that a physical connection can be established through the bearer services network. Support for new independent claim 24 resides throughout the original disclosure, such as in the summary, for example.

New dependent claims 15 and 27 specify that the bearer services network is an ATM network. New dependent claim 16 and 28 state that traffic is switched through the bearer services network without having to be switched through the plural switch emulators/logical unit (see the last line of page 3 of the original disclosure). New dependent claims 17 and 29 specify that the bearer services network is divided into plural switching domains, with each of the plural switching domains being equipped with one of

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the plural switch emulators/logical unit (for support, see, e.g., page 6, third full paragraph of the specification).

New dependent claims 18 and 30 specify that the plural switch emulators/logical unit are/is provided in the bearer services network. *See*, e.g., page 8, lines 1 - 3 of the specification.

New dependent claims 19 and 31 state that narrowband terminals are involved in a call, and that call control procedures of the call services network are carried transparently between the narrowband entities in the call services network through the bearer services network. For support, see, e.g., page 5, third full paragraph.

New dependent claims 20 and 32 state that the network comprises a first broadband terminal and a second broadband terminal, and that the bearer services network entry port is a port of the first broadband terminal and the bearer services network exit port is a port of the second broadband terminal.

New dependent claims 21 and 33 specify that the bearer services network is an ATM network, and that the first broadband terminal and the second broadband terminal handle interworking of voice transport circuits to ATM transport. For support, see *inter alia* page 6, 1st paragraph.

New dependent claims 22 and 34 specify that the call services network is a synchronous transport mode (STM) network.

New dependent claims 23 and 35 require that the emulated connection be used for sending an address of the bearer services network exit port to the bearer services network entry port, or for sending the address of the bearer services network entry port to the

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bearer services network exit port, so that the physical connection can be established through the bearer services network.

New dependent claim 25 (dependent on independent claim 24) states that the logical unit identifies an address of the bearer services network exit port. New dependent claim 26 (also dependent on independent claim 24) specifies that the information (carried by the virtual connection) is an address of the bearer services network exit port or an address of the bearer services network entry port.

D. THE PATENTABILITY OF THE CLAIMS

Claims 1-6 stand rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention (see enumerated paragraph 2 of the Office Action). Claims 1-2, 4 and 6-7 stand rejected under 35 USC §102(e) as being anticipated by U.S. Patent 5,568,475 to Doshi (see enumerated paragraph 4 of the Office Action). Claims 3, 5 and 8-13 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent 5,568,475 to Doshi in view of U.S. Patent 5,452,295 to Nakagaki (see enumerated paragraph 6 of the Office Action).

As amended independent apparatus claim 1 requires means for emulating a switch which provides synchronous transfer mode (STM) resources for a virtual STM connection, the STM connection being used for returning an address of the exit port to the entry port, or for forwarding an address of the entry port to the exit port, whereby the call can be switched directly through the ATM network. Similarly, as amended independent method claim 4 requires a step of emulating a switch which provides synchronous transfer mode (STM) resources for a virtual STM connection, the STM connection being used essentially in the same manner as independent claim 1.

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As mentioned above, new independent claim 14 requires plural switch emulators which seize plural virtual trunks for establishing an emulated connection between a bearer services network entry port and the bearer services network exit port. New independent claim 24 requires a logical unit which emulates a virtual connection provided to the narrowband switches. New independent claim 36 concerns a switch emulator which seizes a virtual trunk for establishing an emulated connection between a bearer services network entry port and a bearer services network exit port. In both claims 14 and 24, as well as new independent claim 36, the emulated connection is used for sending information to the bearer services network entry port so that a physical connection can be established through the bearer services network.

U.S. Patent 5,568,475 to Doshi does not appear even remotely germane to the concept of emulating a switch which provides synchronous transfer mode (STM) resources for a virtual STM connection. Insofar as signaling for call setup is concerned, rather than use an *emulated* switch or a *virtual STM* connection, U.S. Patent 5,568,475 to Doshi employs an actual SS7 out-of band signaling network with signal transfer points such as STPs 250-1 and 250-2, for example. Call processors in ATM switches may be employed for trunk selection, but the call processors are not part of an *emulated* switch and establish an actual signaling connection, rather than a *virtual STM* connection. Moreover, in Doshi it is the STP signaling network -- not a virtual STM connection -- which returns the information used for established a physical connection through the bearer services network. *See*, e.g., col. 5, lines 46 - col. 6, line 43 of Doshi.

U.S. Patent 5,452,295 to Nakagaki discloses that a call is disconnected when not utilized for a long time. The band allotted to the unutilized call is then allotted to another call. In Nakagaki, various methods are described for detecting that the call is inactive for a longer time than a predetermined time. A virtual channel is assigned to the call, such

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that ATM cells containing the virtual channel identification can be detected. Nakagaki is not concerned with integrating STM and ATM technology.

Neither Doshi nor Nakagaki seem to disclose that an STM connection is emulated to a narrowband switch, according to Applicant's claims. Therefore, it is respectfully requested that the prior art rejections be withdrawn and that the application be passed to issue.

E. INFORMATION DISCLOSURE STATEMENT

The documents listed on the attached PTO-1449 are submitted in the above-identified application in compliance with 37 C.F.R. §§1.97(c) and 1.98. The documents listed on the attached PTO-1449 include copending US Patent Application Serial Number 090/353,135, filed July 14, 1999, entitled "Narrowband Applications Using ATM Switching and Transport", and the references of record in US Patent Application Serial Number 090/353,135.

Please charge all fees associated with the submission of this Information Disclosure Statement and any other fees applicable to this application to Deposit Account No. 14-1140.

The Examiner is requested to kindly initial the attached PTO-1449 in order to make the documents listed of record for the captioned application.

F. MISCELLANEOUS

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers, including but not limited to all fees associated with the submission of this Information Disclosure Statement, and the continued pendency of the captioned application.

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Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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